

REMARKS

Claims 1-19 are all of the claims pending in the application. Herein, Claims 1-19 are cancelled; new Claims 20-39 are added; and new Claim 38 is cancelled as drawn to a non-elected group.

Applicants acknowledge the Examiner's request for assistance in correcting minor errors in the specification. Applicants request, however, that such correction(s) be held in abeyance until the Examiner identifies specific error(s).

**Rejections under 35 U.S.C. § 112, ¶ 2**

Claims 1-19 are rejected under 35 U.S.C. § 112, second paragraph. The Examiner's position appears to be that certain listed expressions in the claims are unclear and thus the rejected claims fail to properly define the invention.

The Examiner's suggestions regarding specific acceptable amendments to the claims are gratefully acknowledged and are incorporated into the present amendments. Claims 1-19 are withdrawn herein without prejudice or disclaimer, and entry of new Claims 20-39 is requested. Applicants assert that the withdrawal of Claims 1-19 and entry of new Claims 20-39 renders the Examiner's rejection moot because new Claims 20-39 fully address the grounds for the Examiner's rejection of withdrawn

Claims 1-19. Accordingly, withdrawal of the rejection is requested.

**Restriction Requirement**

In response to the Examiner's restriction requirement, Applicants elect Group I with traverse. Group I comprises withdrawn Claims 1-16 and 19, drawn to indole compounds and compositions and their use to inhibit cell death, and corresponds to new Claims 20-36 and 39. Group II comprises withdrawn Claim 17 to a preservative for organs, and corresponds to new Claim 37. Group III comprises withdrawn Claim 18 drawn to an assay method for cell death, and corresponds to new Claim 38.

Accordingly, Group I (new Claims 20-36 and 39) is elected. However, Applicants traverse the restriction between Groups I and II. Specifically, new Claim 36 (Group I) is directed to a composition for treatment or prevention of functional deficiency of transplanted organs, tissues or cells. New Claim 37 (Group II) is directed to a composition for preserving organs, tissues or cells. Applicants submit that the subject matter of Claims 36 and 37 is sufficiently closely related that search and examination of the combination of Groups I and II would not impose a serious burden upon the Examiner. MPEP 803.01.

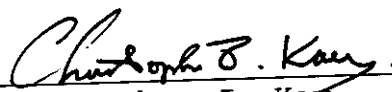
Accordingly, Applicants request that the Examiner consider rejoining Groups I and II and withdrawing the restriction requirement as to these groups.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

This Amendment is considered timely filed. However, Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,

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Date: January 28, 2002

APPENDIX  
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE TITLE:

The title is changed as follows:

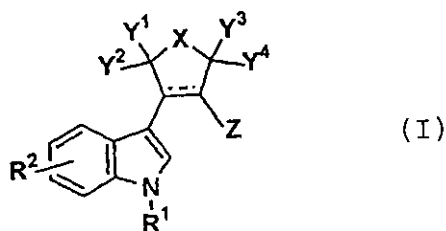
Please delete the title "CELL DEATH INHIBITOR" and insert -  
---INHIBITORS OF APOPTOSIS AND NECROSIS---.

IN THE CLAIMS:

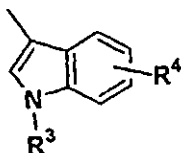
Please cancel Claims 1-19 without prejudice or disclaimer.

Please enter new Claims 20-39:

20. (New) An inhibitor of apoptosis or necrosis comprising  
an indole compound according to formula (I):



wherein X represents an oxygen atom or N-R<sup>5</sup>; Z represents a  
halogen atom or



$R^1$  and  $R^3$  each independently represents a hydrogen atom, an alkyl group which is substituted or unsubstituted, an alkenyl group which is substituted or unsubstituted, an alkynyl group which is substituted or unsubstituted, an aryl group which is substituted or unsubstituted, an acyl group which is substituted or unsubstituted, an alkoxy- or aryloxycarbonyl group which is substituted or unsubstituted, an alkyl- or arylthiocarbonyl group which is substituted or unsubstituted, an aminocarbonyl group which is substituted or unsubstituted, an alkyl- or arylsulfonyl group which is substituted or unsubstituted, an alkoxyl group or an aryloxy group which is substituted or unsubstituted, or a hydroxyl group;  $R^2$  and  $R^4$  each represents substituent(s) on an indole ring, in which number and position (2-, 4-, 5-, 6-, or 7-position as position number of the indole ring) of the substituent(s) and kinds of the substituent(s) may be the same or different, and represents a hydrogen atom, an alkyl group which is substituted or unsubstituted, an alkenyl group which is substituted or unsubstituted, an alkynyl group which is substituted or unsubstituted, an aryl group which is substituted or unsubstituted, an acyl group which is substituted or unsubstituted, an alkoxy- or aryloxycarbonyl group which is

substituted or unsubstituted, an alkyl- or arylthiocarbonyl group which is substituted or unsubstituted, an aminocarbonyl group which is substituted or unsubstituted, an alkyl- or arylsulfonyl group which is substituted or unsubstituted, an alkoxyl group or an aryloxy group which is substituted or unsubstituted, an alkyl-or arylthio group which is substituted or unsubstituted, a hydroxyl group, a carboxyl group, a cyano group, a nitro group, an amino group which is substituted or unsubstituted, or a halogen atom; R<sup>5</sup> represents an alkyl group which is substituted or unsubstituted, an alkenyl group which is substituted or unsubstituted, an alkynyl group which is substituted or unsubstituted, an aryl group which is substituted or unsubstituted, an alkoxyl group or an aryloxy group which is substituted or unsubstituted, an amino group which is substituted or unsubstituted, a hydroxyl group, or a hydrogen atom; Y<sup>1</sup> and Y<sup>2</sup>, and Y<sup>3</sup> and Y<sup>4</sup> each independently represent two hydrogen atoms or a hydrogen atom and a hydroxyl group, or are combined to form a carbonyl group; and R<sup>1</sup> and R<sup>2</sup>, R<sup>1</sup> and R<sup>3</sup>, R<sup>3</sup> and R<sup>4</sup>, or R<sup>2</sup> and R<sup>4</sup> may be combined to form a hydrocarbon chain or a hydrocarbon chain containing hetero atom(s) which is substituted or unsubstituted; and in the formula, the bond

accompanying a dotted line represents a double bond or a single bond, or a pharmaceutically acceptable salt thereof.

21. (New) A composition comprising the compound of claim 20, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

22. (New) The composition of claim 21, wherein said composition is useful for treating a neurodegenerative disease.

23. (New) The composition of claim 21, wherein said composition is useful for treating neonatal jaundice.

24. (New) The composition of claim 21, wherein said composition is useful for treating myasthenia gravis.

25. (New) The composition of claim 21, wherein said composition is useful for treating brain ischemia or delayed neuronal death (DND).

26. (New) The composition of claim 21, wherein said composition is useful for treating a disease selected from the group consisting of ischemic heart disease, viral myocarditis, autoimmune myocarditis, myocardial disorders, hypertrophic heart and heart failure, and arrhythmogenic right ventricular cardiomyopathy.

27. (New) The composition of claim 21, wherein said composition is useful for treating alcoholic hepatitis or viral hepatitis.

28. (New) The composition of claim 21, wherein said composition is useful for treating renal diseases.

29. (New) The composition of claim 21, wherein said composition is useful for treating acquired immunodeficiency syndrome (AIDS).

30. (New) The composition of claim 21, wherein said composition is useful for treating an inflammatory skin disorder, alopecia, or graft versus host disease (GVH).

31. (New) The composition of claim 21, wherein said composition is useful for treating radiation disorders, or disorders due to toxic agents.

32. (New) The composition of claim 21, wherein said composition is useful for treating sepsis.

33. (New) The composition of claim 21, wherein said composition is useful for treating osteomyelo-dysplasia.

34. (New) The composition of claim 21, wherein said composition is useful for treating insulin dependent diabetes.

35. (New) The composition of claim 21, wherein said composition is useful for treating prion diseases.

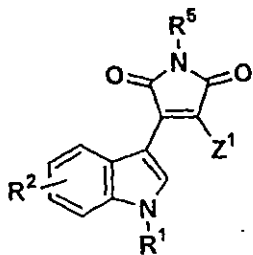


36. (New) The composition of claim 21, wherein said composition is useful for treating or preventing functional deficiency of transplanted organs, tissues or cells.

37. (New) A preservative for organs, tissues or cells, comprising the compound of claim 20, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

38. (New) A method for screening for an inhibitor of apoptosis or necrosis, comprising applying an apoptosis- or necrosis-inducing stimulus to primary cultured cells in the presence of a test compound or adding a test compound just after applying an apoptosis- or necrosis-inducing stimulus, and subsequently evaluating a ratio of apoptosis or necrosis in treated and untreated primary cultured cells.

39. (New) A composition comprising, as an active ingredient, a 2-halo-3-indolylmaleimide compound according to formula (II):



(II)

wherein  $Z^1$  represents a halogen atom; and  $R^1$ ,  $R^2$  and  $R^5$  have the same meaning as in claim 20, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.